NUCLEAR DIVISION NEWS

a newspaper for employees of the nuclear division • union carbide corporation

UNION CARBIDE

Vol. 9/No. 20 September 28, 1978

PH78-3917

ORGDP employees find deafness not a deterrent

When P. E. "Eddie" Clayton was interviewed for a job with the Prototypes Development Department at ORGDP, his potential supervisor T. T. "Tommy" Jones Jr. couldn't help wonder if others in the department would accept Clayton's deafness. This was despite the fact that Clayton met all the requirements for the position. Clayton was hired and was well received by the 18-member group. His hiring led several employees in the department to learn sign language voluntarily in order to communicate with him so that he could perform his job better.

The Prototypes Development Department is part of the Separations Systems Division at ORGDP. Clayton assembles and tests gas centrifuge components which are under development.

Before joining Union Carbide, Clayton was a printer, a trade he learned while attending the Tennessee School for the Deaf. Printing was a trade taught to many deaf persons because little two-way communication is required in that business. Clayton lost his job in early 1977 when the newspaper he worked for began automating certain portions of its printing process.

After being hired at ORGDP, Clayton's supervisor Tommy Jones and H. L. Bracken, a technician, began taking a sign language course offered by New York Avenue Church of Christ in Oak Ridge.

Hand signals posted

A number of other technicians, along with Mary Jayne Long, a secretary, have developed proficiency in sign language communications. In addition, a picture of hand signals, each representing one of the letters of the alphabet, has been posted on desks throughout the department and in offices. Other hand signals are used to denote certain words and some hand signals have been developed for quick communications under certain circumstances. For example, if an emergency alarm sounds, Bracken, who works near Clayton, would go over to Clayton and get his attention. Bracken would then circle his hand over his head and point to an exit. This signal would be used only for an emergency when the building had to be cleared.

Efforts were made to find sign language teaching books. One book, "Say It With Hands," has been added to the ORGDP library. One of the newer employees in Prototypes Development has borrowed the department's copy because he wants to be part of the group.

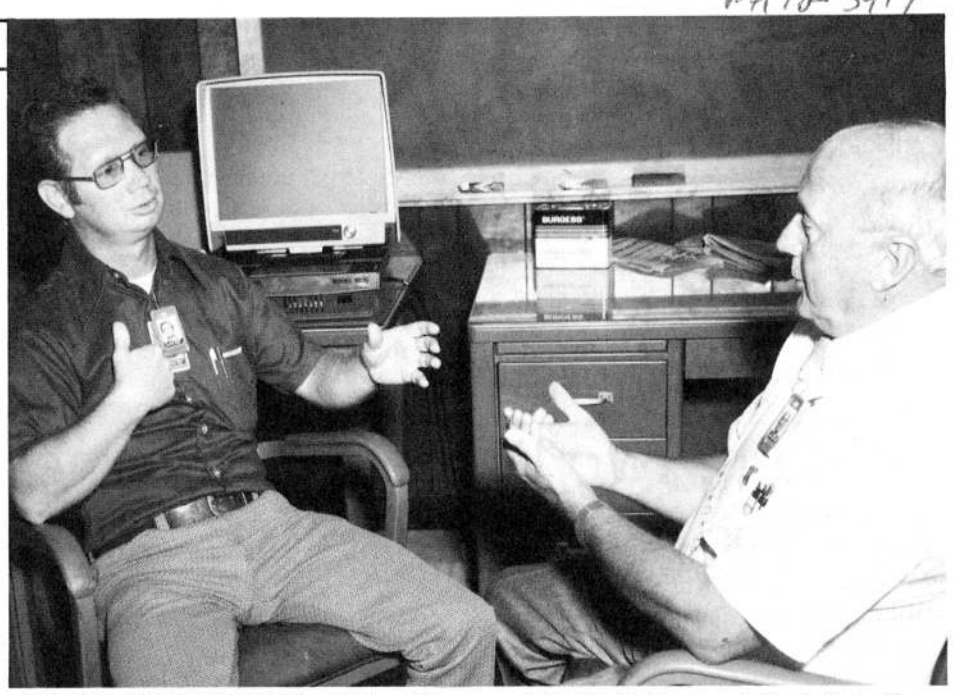
Lost hearing as infant

R. E. Brockwell, who heads the department, said, "Clayton is an excellent employee who has a positive attitude and is dedicated to doing his job properly and accurately. His job requires several critical steps in assembly and accurate measurement of dimensions. We would like to have another dozen employees with his skill and dedication."

Clayton lost his hearing as an infant because of an infection. He is active in the First Baptist Church for the Deaf People in Knoxville; is chairman of Recreation for the Deaf at Knoxville, and is recreation chairman at the Youth Camp for the Deaf at Camp Carson in Newport, Tenn.

Clayton's biggest project is the construction of a new home off Buttermilk Road, near Melton Hill Dam. A contractor is expected to have the house under roof soon. Then Clayton, along with neighbors and friends, and there are many, will finish off the interior.

The 35-year-old employee is a native of Chattanooga. He and his wife, Bobbie, have three children, Marvin, Johnny and Arthur.



WORK DISCUSSIONS—Eddie Clayton, left, "talks" about his job in the Prototypes Development Department at ORGDP with T. T. Jones Jr., supervisor. After Clayton joined the Nuclear Division, Jones enrolled in a class in Oak Ridge to learn sign language.

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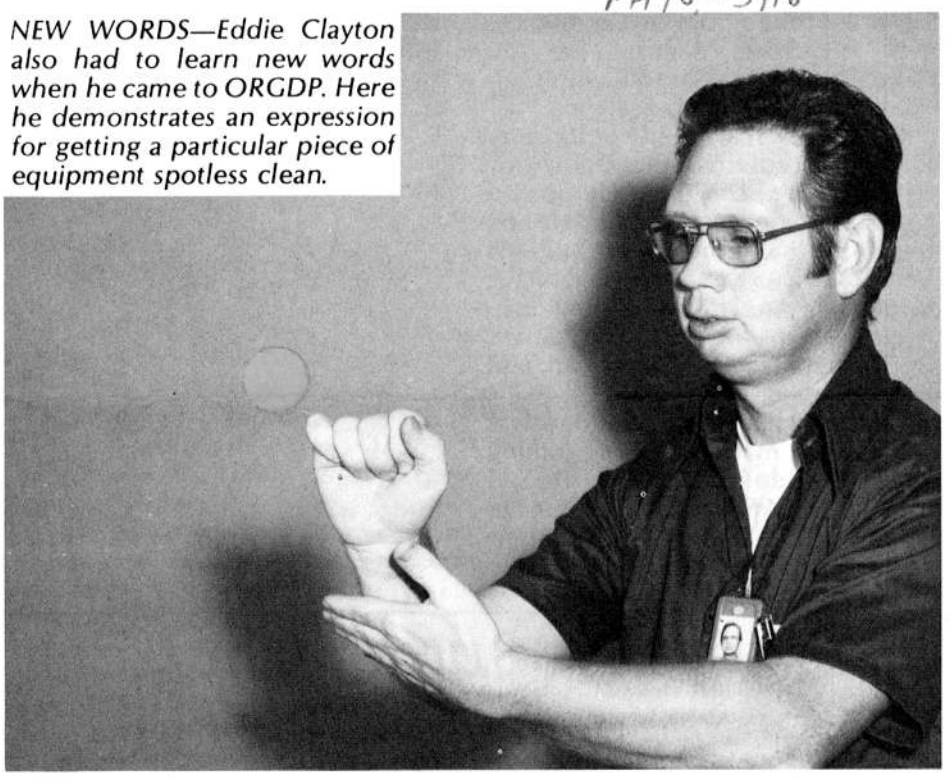

NEW WORDS—Eddie Clayton also had to learn new words when he came to ORGDP. Here he demonstrates an expression for getting a particular piece of equipment spotless clean.

Corporate world of Union Carbide....

UNION CARBIDE CORPORATION recently announced plans to sell two of its major European subsidiaries and other interests which account for a major share of the company's ethylene derivatives businesses in Europe. The buyer is BP Chemicals, Ltd., a subsidiary of the British Petroleum Company, Ltd.

The companies involved are Bakelite Xylonite, Ltd. in the United Kingdom and Union Carbide in Antwerp, Belgium.

Union Carbide based its decision on an intensive review of its long-range global business strategy and its commitment to concentrate on those businesses where a strong competitive position is enjoyed. In the United States, Union Carbide is a major producer of ethylene for its own chemicals and plastics business, but in Western Europe, it is virtually the only major producer of first-line derivatives which must buy all of its ethylene from outside suppliers.

The value of the transaction is approximately $400 million, made up of roughly half in cash and the remainder in debt obligations of the acquired companies. Although the precise purchase price will not be determined until final audits are completed, Union Carbide expects a modest non-recurring gain to result from this transaction in 1978.

Wartime women anecdotes needed

Women working in a man's world is not a trend to be associated strictly with women's lib, especially in the Nuclear Division.

Since the Oak Ridge facilities were constructed during World War II, women have been instrumental in keeping them going. The **Nuclear Division News** would like to find out what these "wartime women" contributed.

We need your responses. If you worked during the war years, or know someone that did, please contact Deb Webster, 3-6415, Room K-253, Building 4500N, ORNL.

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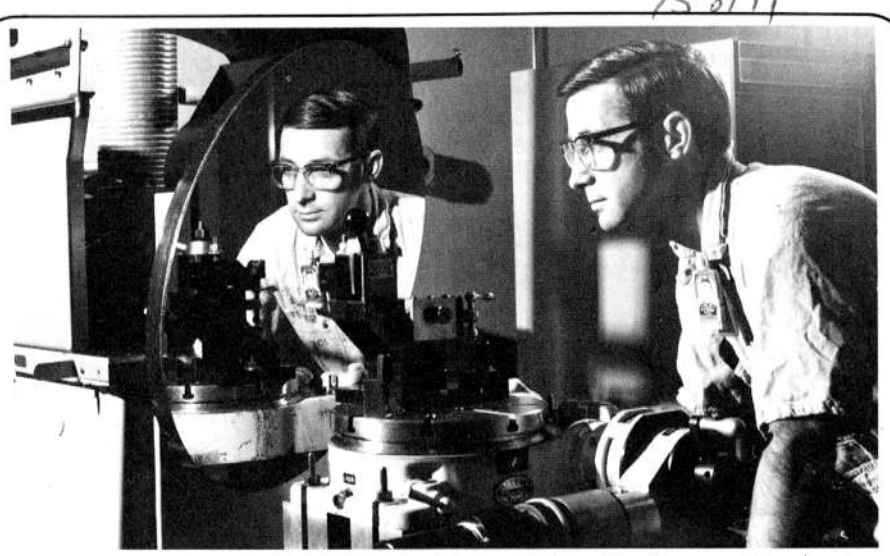


MIRROR MACHINING—Y-12 machinist Bill R. Sparks machines a laser fusion mirror for the Los Alamos Scientific Laboratory. The diamond machining process took an "IR-100" award, along with three other Nuclear Division developments. Story on pages 4 and 5.

About people...

John S. Cook, a group leader in the molecular and cellular sciences section of ORNL's Biology Division, has been named president-elect of the Society of General Physiologists. He took office September 22 at the Society's annual meeting in Woods Hole, Mass.

Cook came to the Nuclear Division in 1966 from the New York University Medical Center, where he had been a professor and director of the physiology graduate program. He has been a member of the Society of General Physiologists for 15 years, serving in 1976-77 as one of the Society's four councilors.

Captain, two lieutenants named in ORGDP fire and guard posts

Three promotions have been announced in the Fire and Guard Department at ORGDP. Robert D. Allen has been named a captain; Richard Hughes and Floyd H. Glenn Sr. have been named lieutenants.

Allen was a fireman with the Clinton Fire Department before joining Union Carbide four years ago. He is a native of Sevier County. He and his wife, Sandra, live on Ridgeview Drive, Clinton, with their daughters, Nancy and Melynda.

Glenn, a native of Strawberry Plains, retired from the U.S. Army after serving 22 years. He joined Union Carbide two years ago. He and his wife, Katherine, live at 1104 Venido Drive, Knoxville. They have three children, Floyd Jr., who is also employed in the Fire and Guard Department at ORGDP; Dean and Kathleen.

Hughes, a native of Oak Ridge, was a restaurant manager before joining Union Carbide four years ago. He and his wife, DiAnne, live on Duncan Hollow Road, Harriman, with their two children, Shawn and Eric.

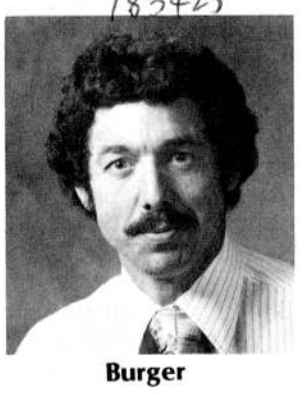
Hughes

Glenn

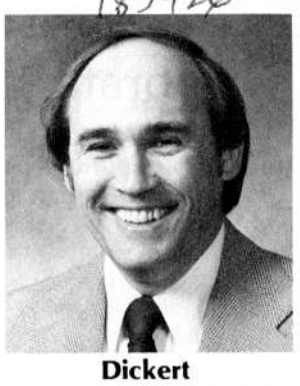
Allen

Arrington, Burger, Dickert promoted at Y-12 Plant

Arrington



Burger



Dickert

Three promotions have been announced at the Y-12 Plant. Eddie W. Arrington has been named an inspection supervisor in Product Certification; Charles D. Burger an assembly engineer in Assembly; and Ron P. Dickert a development associate in the Development Division.

Arrington, a native of Newport, Tenn., joined Union Carbide in 1958, after working as an auto salesman. He and his wife, the former Barbara Arnett, live at Route 6, Clinton. They have four children, Ed, Renee, Jeff and Kim.

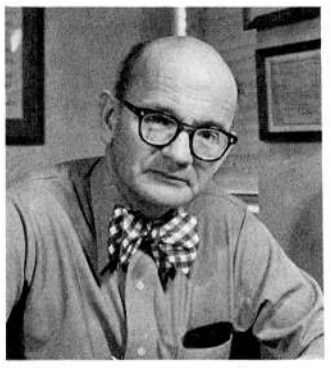
Burger was born in Cleveland, Tenn., and attended Roane State Community College and the University of Tennessee before coming to Y-12 in 1970. He worked for Ray and Pearman, Huntsville, Ala.

Mrs. Burger is the former Vickie Scarbrough. They live at 206 Willowbrook Road, Kingston.

Dickert, a native of Greenville, S.C., has a BS in electrical engineering from the University of Tennessee. He also attended the University of Alabama, John C. Calhoun Junior College and Perkinston Junior College.

He worked with the Boeing Company and as a training instructor in the Air Force before joining Union Carbide in 1969.

Mrs. Dickert is the former Dottie Brownlee. The couple lives at 104 Amherst Lane, with their children, Ronnie and Nancy.



Medicine Chest. . .

Salt in diet

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," **NUCLEAR DIVISION NEWS,** *Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)*

QUESTION: "I have been cutting down on the amount of salt in my diet and the amount I use in cooking for my family. Now I am wondering if we will be getting enough iodine. How much iodine is needed, and how much salt should be eaten to get that much in the diet (assuming no salt water fish is eaten)?"

ANSWER: Iodine is an essential trace element, and a chronic deficiency can lead to the development of simple goiter in some people. At one time, it was widely believed that iodine deficiency was the sole cause of goiter. Fifty to one hundred years ago in certain parts of the world, middle-aged women with huge enlargements of their thyroid glands were a common sight. At that time, women developed a goiter about four times more frequently than men. Now a goiter is almost a medical curiosity.

Iodine deficiencies

The parts of the world which are chronically deficient in iodine include mountainous areas such as the Alps, the Himalayas, the Andes and the mountains in New Zealand. In the United States, the natural deficiency is primarily in the Great Lakes Basin, Minnesota, the Dakotas, the Pacific Northwest and in the valley of the upper Mississippi. These are areas where the iodine content of the soil, and therefore of the food and water, is low. Now, of course, the iodine content of food depends not only on the type of soil in which it was grown, but also on the fertilizers used, the type of feed given to animals and the methods used during processing. Today, every supermarket gets food raised in many different parts of the country under many different conditions. Natural iodine deficiency related to the diet in this country is now probably rare. Also, with iodine being added to salt, there is almost no chance for an iodine deficiency to develop.

We now know that some people are much more vulnerable to the effect of inadequate iodine in the diet. Genetic factors, infectious agents, defective enzyme systems in the thyroid gland and the presence of goitrogens may predispose a few people to goiter, even when the iodine supply is only slightly deficient. A goitrogen is a substance, usually found in foods, which has antithyroid activity. Rutabagas, turnips and some cabbages have small amounts of goitrogens.

Daily requirement

Iodized salt contains 76 micrograms of iodine per gram of salt. An average adult consumes about four to eight grams of salt each day, so about 500 micrograms of iodine would be consumed. Most people don't require more than about 100 micrograms per day. Most bakeries add iodine as an iodate to dough as a stabilizing agent. Each slice of the bread made from such dough contains about 150 micrograms.

Natural iodine has always been abundant in seafoods, but now vegetables, meats, dairy products, eggs and breads generally have reasonably adequate amounts.

You would have to eat only about two grams of iodized salt each day to prevent a dietary deficiency of iodine—even if the rest of your food contained no iodine whatsoever. If your family members all have reasonably normal thyroid glands, you could safely greatly reduce your consumption of iodized salt. Salt, by itself, has been called the "seeds of death" because of its effect on blood pressure and heart disease. You should be commended for your positive health action.

Savings Plan-Personal Investment Account

	Fixed Income Fund	UCC Stock	Equity Investment Fund
December 76	13.0553	59.2723	8,8166
December 77	14.2017	40.9096	8.0427
June 78	14.8230	39.0223	8.2219
July 78	14.9286	38.0276	8.6217
August 78	15.0351	40.6839	8.8425

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 8.85% for 1978. Union Carbide stock values are the average cost of stock purchased during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price of each unit is determined by dividing the total value of the securities by the number of units in the Fund.

ORGDP surpasses set goal; other plants not far behind

More than 500 Nuclear Division employees attended the 1978 United Way kickoff, Friday, September 15, at the Oak Ridge Civic Center.

Arriving by bus, the employees were able to get firsthand information from 30 of the agencies—representing Anderson, Blount, Knox, Loudon, Morgan and Roane counties—that receive funds through United Way. The agencies provided pamphlets, charts, displays and demonstrations ranging from videotapes to lifesaving techniques.

Fred W. Isaacs, president of the Athletic Goods Association in Cosby, Tenn., spoke to the group, congratulating them on past efforts for United Way. "This is a real success story for society," he said.

He said Union Carbide is successful because its employees care. "When we're caring and sharing," Isaacs said, "we can't fail."

Paducah employees began their drive ahead of the community, and have reported almost 84 percent of their goal in the drive's first week. Paducah has set a goal of $85,000.

Left center, Fred W. Isaacs, president of the Athletic Goods Association in Cosby, Tenn., addresses the more than 500 Nuclear Division employees attending the United Way Kickoff in Oak Ridge.

Upper right, Albert Beasley, of Y-12's Fabrication Division, talks with Roletta Lynn Daugherty, who represented the Morgan County Contingency Fund during the United Way Kickoff.

Nuclear Division standings

One week into the campaign, employees reached 85 percent of the $755,000 goal. The unofficial standings for each plant are listed below:

Plant	Goal	Standing to Date
Y-12	$179,220	$153,368
ORGDP	216,752	224,291
ORNL	274,028	194,777
Paducah	85,000	71,000

Robert Riepe named head of Systems and Equipment

Robert C. Riepe has been named superintendent of the Systems and Equipment Department in the Enrichment Technology Division, ORGDP.

Prior to his appointment, Riepe served as Operations Department superintendent at the Paducah Plant. He joined Union Carbide in 1969 after receiving his BS and MS degrees in mechanical engineering from Southern Illinois University.

The Metropolis, Ill., native and his wife, Janet, plan to move to Concord Hills, Knoxville. They have two children, Renee and Suzanne.

Crowell promoted to I&C supervisor

Richard A. Crowell has been promoted to maintenance supervisor in the Instrumentation and Controls Division, ORNL.

Crowell, who has been with Union Carbide for 25 years, started at the Paducah Plant in 1953 as an instrument mechanic. He moved to Oak Ridge in 1962 and has been a senior engineering assistant for the past four years.

Originally from Augusta, Me., he served in the U.S. Army Air Corps before joining Union Carbide.

Crowell has an associate degree in management and supervision from Roane State Community College and is currently working on a BS degree in industrial management at the University of Tennessee.

He and his wife, Doris, a secretary in Separations Systems at ORGDP, have a son, Fred. The Crowells live at 803 Oak Plaza Road, Kingston.

Five promotions at Paducah

Five promotions have been announced at the Paducah Plant. William D. Cobb has been made an illustrator in the Finance and Materials Division; Hubert L. Conway, E. David Gourieux and Donald E. Page, supervisors in the Cascade Operations Division; and Darrell T. Griffin, a supervisor in Fabrication and Maintenance.

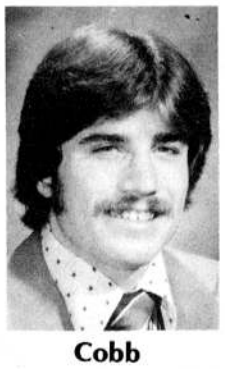
Cobb has attended the University of Missouri at Rolla and Murray State University. He was employed at Guy Gray Supply before joining Union Carbide in 1977. A native of Miami, Fla., he lives at Route 2, West Paducah, with his wife, Susan.

Conway joined Union Carbide in 1952 after working with the City Water Department, Jackson, Mich. A native of Ballard County, he lives at Route 3, Kevil, where he is director of the Bandana Fire Department. Conway and his wife, Margaret, have two children, Larry and Theresa.

Gourieux is a graduate of Murray State University. A native of Paducah, he has been with Union Carbide two years. He played professional baseball with the Atlanta Braves. He and his wife, Janice, live on Lutes Road, Paducah, with their son, Derrick.

Griffin joined Union Carbide in 1975 after working with the Martin Machine Works. A native of Union City, Tenn., he attended Dyersburg State Community College and the University of Tennessee at Martin. He served in the Tennessee National Guard for six years. He and his wife, Marlene, live on Stevin Drive, Paducah. They have a daughter, Gina.

Page, a native of Paducah, joined Union Carbide in 1974 after working as a clothing salesman. He and his wife, Donna, and their son, Brent, live on Ramona Drive, Paducah.



Cobb

Conway

Gourieux

Griffin

Page

'IR-100' awards...

Four developments among 'most significant' i

Scientists and engineers from the Nuclear Division were honored last week for four of the 100 most significant new technical developments of 1978. The "IR-100 awards" are presented annually by **Industrial Research** magazine.

Two of this year's winning products were developed by researchers at the Y-12 Plant and the other two were developed at ORNL.

The following developments were recognized during cermonies at the Museum of Science and Industry in Chicago:

- **Burn Analyzer for Rapid Injury Assessment;**
- **Pressurized Continuous Annular Chromatograph (CAC);**
- **"Microsorb" Solar-Selective Carbon Coating; and**
- **Diamond Machining of Optics (jointly with the Air Force Weapons Laboratory, Lawrence Livermore Laboratory and the Los Alamos Scientific Laboratory).**

Burn Analyzer

This unique device is able to measure within minutes the extent of tissue damage caused by thermal and electrical burns. It was developed by Ronald E. Goans, ORNL's Industrial Safety and Applied Health Physics Division, and John H. Cantrell, former ORNL consultant who is currently with Langley Research Center in Hampton, Va.

Burns are among the most severe of all traumatic injuries. Of the two million Americans who receive burns each year, approximately 70,000 require hospitalization and about 10,000 die.

The significance of burn depth and its relationship to the rate of healing and ability of a victim to survive the injury has long been recognized by physicians. However, prior to the ORNL development, no quantitative technique for measuring burn depth existed.

The burn analyzer, developed in cooperation with the University of Tennessee's Comparative Animal Research Laboratory (UT-CARL) in Oak Ridge, will give the burn surgeon an objective method for evaluating the depth of tissue damage in severe burns during the first few hours of hospitalization.

The new technique uses an ultrasonic pulse-echo method to measure extremely small distances through layers of soft skin tissue. The ultrasonic pulses are short bursts of high-frequency sound, less than one millionth of a second in duration, that are transmitted through the wound area.

These pulses are recorded as reflection spectra on an instrumentation screen. By examining the reflection of the pulses from each layer of skin, it is possible to determine whether the burn is second or third degree. Second degree burns usually heal uneventfully, while it is necessary to graft the remaining areas of third degree burns.

Early determination of burn depths would permit improved treatment and thereby decrease the probability of severe infection and patient mortality, the length and cost of hospitalization, and surgeon work loads.

Initial tests with the system, conducted with animals at UT-CARL and Oak Ridge Associated Universities, were successful. Preliminary tests to determine the system's applicability to human burns have been done at the Norton Children's Hospital Burn Unit in Louisville, Ky.

A U.S. patent has been granted for the burn analyzer, which to date has proven to be painless to the patient, sensitive, noninvasive and inexpensive to operate.

BURN ANALYZER—The "Burn Analyzer for Ronald E. Goans, ORNL Industrial Safety and Cantrell, former consultant who is currently w device uses an ultrasonic pulse-echo method damage caused by thermal and electrical burn on an instrumentation screen. Early determina severe infection and patient mortality, the le work loads.

Annular Chromatograph

The Pressurized Continuous Annular Chromatograph (CAC) represents a breakthrough in separations technology since it permits large quantities of various kinds of dissolved materials to be separated and collected on a continuous basis. It was developed by Charles D. Scott, Ronald M. Canon, Warren G. Sisson and Roger D. Spence of ORNL's Chemical Technology Division.

Although the chromatographic method of separation has been in use for several years, the new CAC is the first device designed which enables products to be continuously fed, separated and withdrawn from the column in large quantities. Previous designs were such that only one batch of material could be separated at a time.

The system can be used to perform ion-exchange chromatography, molecular sizing and displacement chromatography, as well as other types of separations. It includes stationary inlet and outlet assemblies, and a rotating bed of sorbent material located between two circular acrylic pipes. The feed and carrier streams enter through a stationary feed point at the top of the column, and gas overpressure allows pressurized operation.

As the column rotates, different chemical constituents are separated and appear as colorful spiral bands. Tubes located around the bottom of the device allow the chemicals to be collected as they exit at specific locations. These tubes may also be connected to in-line analyzers.

The new development may have widespread application in the food and drug industries as well as other areas which require preparative separation of easily damaged components. Because the process is continuous, it would be more efficient and less expensive for full-scale commercial use.

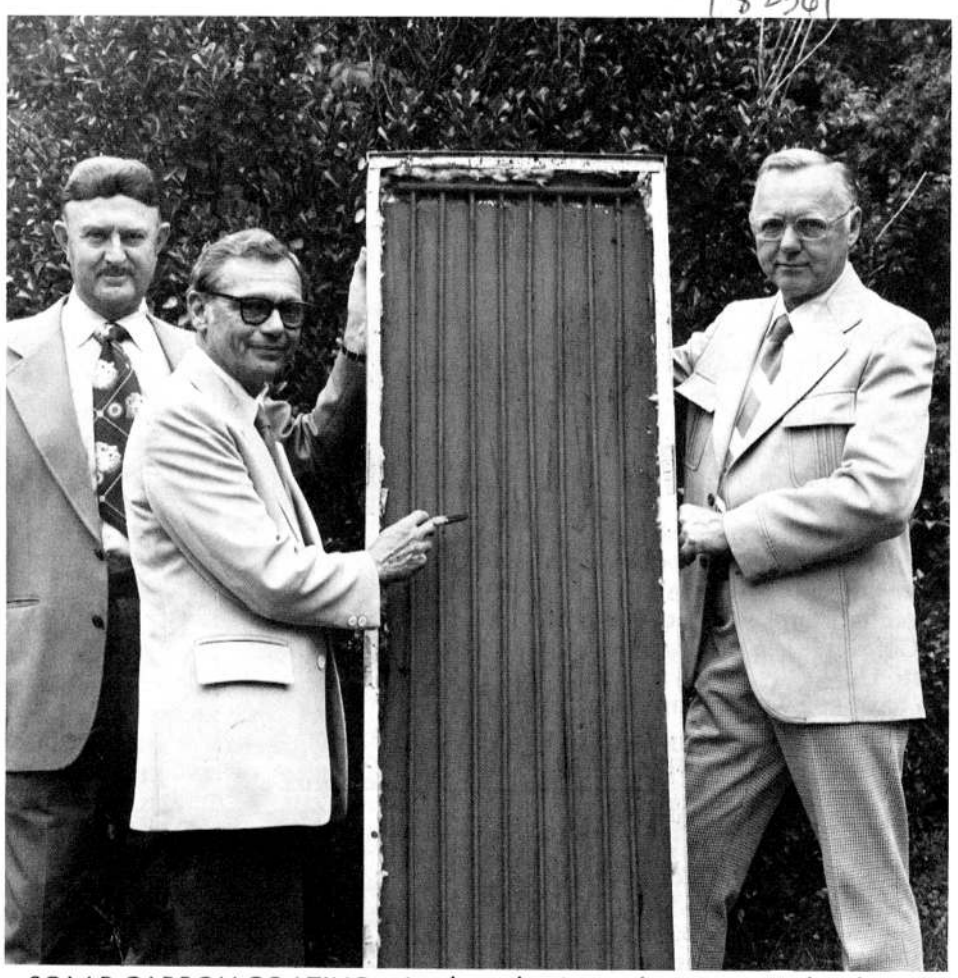
Selective Carbon Coating

A carbon coating has been developed at the Y-12 Plant which provides a high absorption of solar energy for use in solar collection panels. The coating was developed by James M. Schreyer, H. D. Whitehead, Charles R. Schmitt and John M. Googin, researchers at the Y-12 Plant.

The inexpensive coating consists of microspheroidal particles of a selected size range, bonded to a metal collector plate with an organic or inorganic binder. The carbons and graphites used are those with a particle size near the wavelength of the infrared/visible light boundary (0.2 to 2.0 micrometers).

Tests have shown that the coating is approximately 17 to 30 percent more effective for flat plate solar energy collectors than carbon black paints and is almost as efficient as the more expensive electrodeposited black chrome coating.

By viscosity adjustment, this coating can be applied by spraying, brushing or by roller. A nominal spraying type mixture consists of 16.0 weight percent carbon powder, 0.5 acrylic resin and 83.5 of mixed solvents comprising equal volumes of xylene, methyl ethyl ketone, methyl isobutyl ketone and methylene chloride. Only five ounces of the fluid mixture are needed to obtain a uniform coating having a thickness of approximately one-third mil over a



SOLAR CARBON COATING—A solar-selective carbon coating, developed at the Y-12 Plant, is composed of particles with a selective size range near the wavelength of the infrared/visible light boundary. It is approximately 17 to 30 percent more effective for coating flat plate solar energy collectors than classical carbon black paints. The developers are, from left, James M. Schreyer, H. D. Whitehead and Charles R. Schmitt. Another developer, John M. Googin, is not pictured.

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Rapid Injury Assessment" was developed by Applied Health Physics Division; and John H. th Langley Research Center, Hampton, Va. The o measure within minutes the extent of tissue s. The pulses are recorded as reflection spectra ion of burn depths decreases the probability of ngth and costs of hospitalization and surgeon

t plate collector having 10 square et of collecting metal surface.

The coating as applied with an rylic resin binder has been in actual rvice for over two years at the perimental University of Tennessee lar house in Knoxville. Since ptember, 1977, the coating has een licensed for use by three mmercial firms.

Diamond Machining

A machining process developed at e Y-12 Plant allows direct brication of optical components om suitable materials using a single-int diamond tool and a specially nstructed machine tool.

The optical surface is generated by ntrolled motion of the diamond ol along a desired path as the optical component is rotated. The machine tool provides the controlled motion and may or may not utilize numerical control.

The new process improves on existing processes in that it can produce a variety of complex optical components, made from suitable materials, in a shorter time and at less cost. Examples of complex optical components are those with aspherical or conical surfaces, and flats with discontinuous surfaces.

Approximately 100 optical components have been manufactured to support laser fusion energy experiments at Los Alamos Scientific Laboratory. Additional components have been made for the U.S. Air Force and the Lawrence Livermore Laboratory.

Museum to show free energy films

A series of "Free Energy Flicks" will be shown by the American Museum of Science and Energy on Thursdays at 7 p.m., September 21-October 12.

One or two different energy topics will be covered at each showing. The schedule is listed below:

September 21—"Dawn of the Solar Age"
"There's Coal in Them Thar Hills"

September 28—"Fusion, the Energy Promise"
"The Other Way"

October 5—"The Energy Crunch"

October 12—"The Sunspot Mystery"

These films are sponsored by the museum, United American Bank and City and County Bank of Anderson County.

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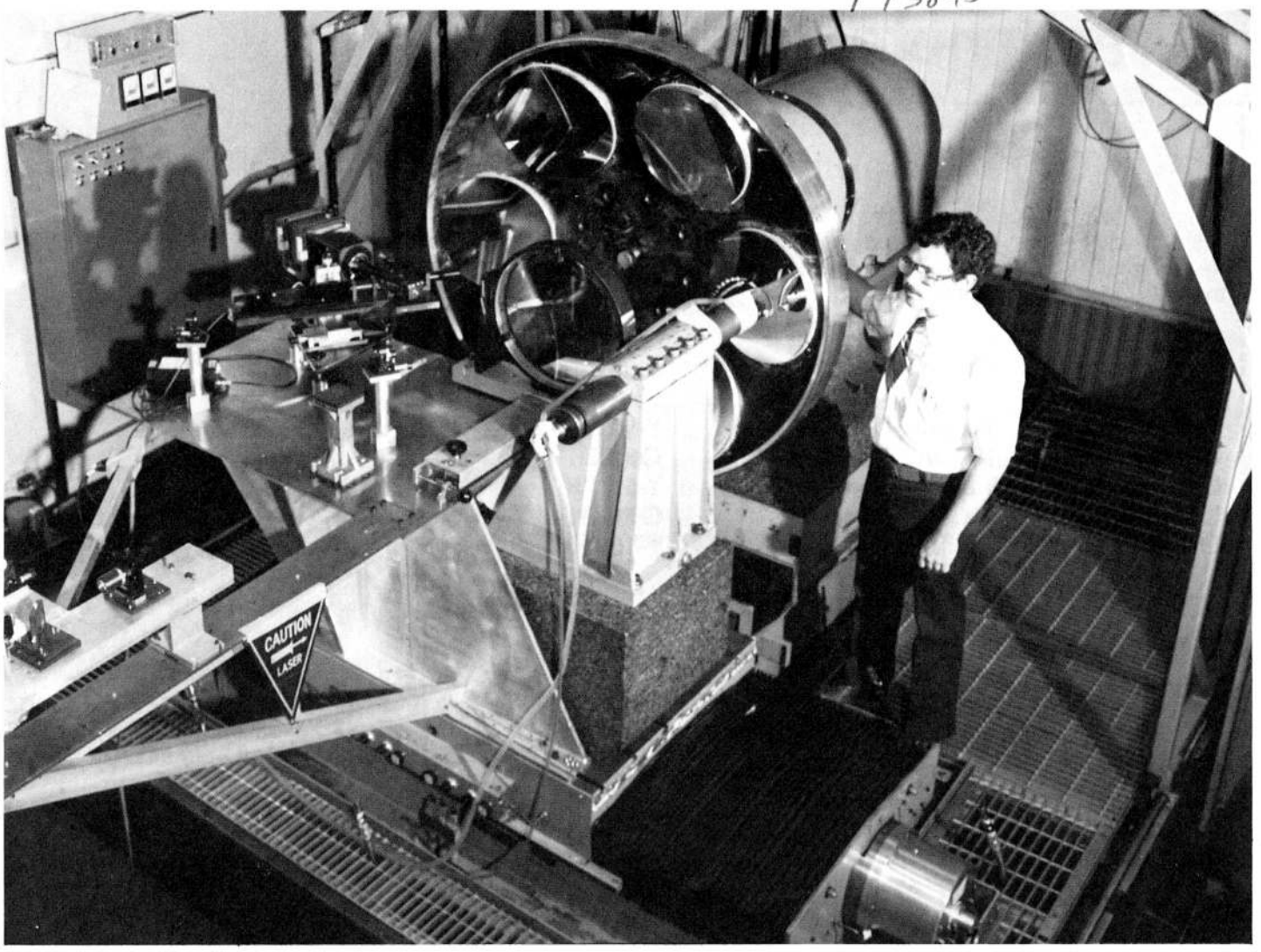
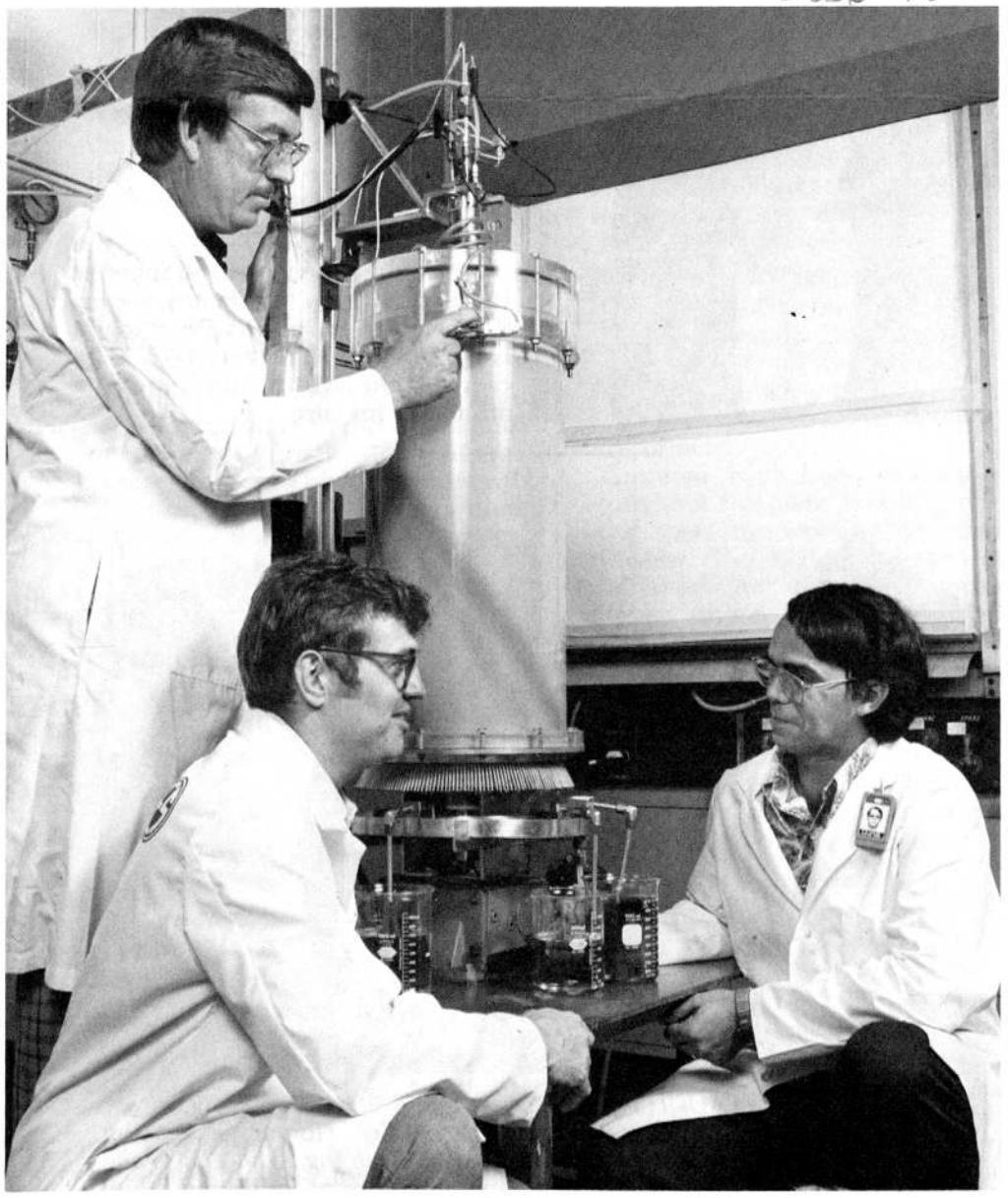


PRECISION FINISHING—Techniques for fabrication of optical components have been developed by a large team of engineers at the Y-12 Plant. Sam Robinson, a development engineer, observes the precision finishing of highly reflective metal mirrors for the Los Alamos Scientific Laboratory in New Mexico. Other types of optical components have been made for the Lawrence Livermore Laboratory and the Department of the Air Force. 3856-78



SEPARATIONS TECHNOLOGY—The "Pressurized Continuous Annular Chromatograph" was developed by, from left, Warren G. Sisson, Roger D. Spence, Ronald M. Canon and Charles D. Scott (not pictured). The system represents a breakthrough in separations technology by permitting large quantities of various kinds of dissolved materials to be separated and collected on a continuous basis. The developers watch as the chromatograph separates a solution of cobalt, nickel and copper.

recreationotes. . .

Clip and Save

Shift activities for the Oak Ridge area have been announced by the Recreation Office. Set for September and October are five turkey shoots at the Oak Ridge Sportsmen's Association.

Date	Time	Sponsor
September 30	8 a.m.-noon	Y-12 "A"
October 7	10 a.m.-2 p.m.	ORGDP "C"
October 14	8 a.m.-noon	Y-12 "B"
October 21	8 a.m.-noon	ORGDP "A"
October 28	8 a.m.-noon	Y-12 "C"

Fishing rodeos have also been set for October.

Date	Time and Place	Sponsor
October 5	6 a.m.-5 p.m. Andersonville Boat Dock	Y-12 "D"
October 11	6 a.m.-4 p.m. Watts Bar—Blue Springs Boat Dock	Y-12 "C"

WINNING COMBO—Taking the crown in the Monday Mixed Summer League are, from left, Penny Jessen, Y-12; Frank Horton, ORGDP; Rhonda Long and Bill Muenzer, Y-12. They called themselves "Hard Times," a misnomer for sure.

MARKSMANSHIP PLAUDITS—Master Sergeant Rolland J. Spurling, center, receives the meritorious service medal from Col. Homer G. Pearson, commander National Guard Marksmanship Training Unit, Nashville. Spurling, Y-12 Maintenance Division, capped the honor for distinguishing himself during 1971-1977 as a member and coach for the All National Guard Rifle Squad. During this time his team won 29 matches and, for the first time in 72 years, won the national trophy team match at the national championships. His squad also won all three team matches and a squad member won the individual championship at the All Army Championships in May. Spurling's wife, Eula, witnesses the honors at right. The Spurlings live in Rockwood.

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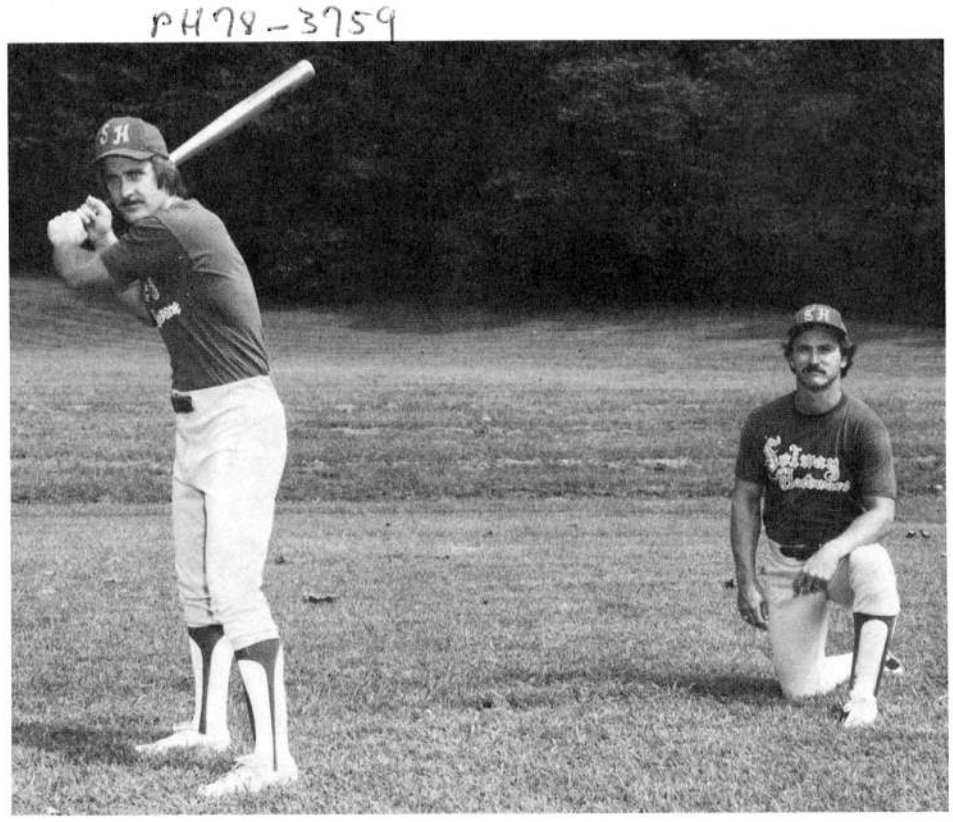


SLO-PITCH LAURELS—Two ORGDP men, Harold D. Adkins, left, and David Fritts were among the top players in the recent national Slo-Pitch Softball Tournament held in Charlotte, N.C.

Nuclear Division softball team takes top national honors

Two ORGDP maintenance mechanics received honors Labor Day weekend during the finals of the National Major Industrial Slo-Pitch Tourney held in Charlotte, N.C.

Harold D. Adkins was the leading hitter in the tournament which involved 37 champion teams from across the nation. More than 20,000 teams started out the year in various leagues. Adkins batted .800 for the series. He had nine home runs, 25 runs-batted-in, and he scored 24 times. Adkins received a plaque for being the top hitter and another plaque for being named to the All-American first team.

Adkins' teammate, David Fritts, also performed well, batting .650 for the tourney. Fritts hit nine home runs, had 15 runs-batted-in and scored 13 runs. He received a plaque for being named to the All-American second team.

The Solway team, named the Tennessee champions placed fifth in the Charlotte tourney. Other members of the team, also Nuclear Division employees, are: Doug Pollitt and Jim Fox, ORGDP; Gary Ellis, Neal Nolan, and Larry McDonald, Y-12; and Rodney Strand, Tom Grizzard and Mary Anderson, ORNL.

Softball tournament

The 1978 Carbide Softball League tournament was completed recently, with team trophies and key chains going to the Fes-Kids, champs of the Carbon League, and to the Hawgs, champs of the Atomic League. Runner-up trophies were given to the Forty-Niners in the Carbon League and the Shifters in the Atomic League.

Bowling. . .

Classic League. . .

The Playboys took an early lead in the Classic's beginning. Lloyd Hill, Fes Kids, won the high series of the week, rolling a 640 handicap total. Sewell Brown took a 262 single game for handicap honors.

Family Mixed. . .

The Smooth Strokers took the league crown for the year. High handicap series went to Marvin Wilkerson, 674; with Melly Koons rolling a 657. John Patton's 270 and Mary Hawkin's 298 were high games of the year, handicap scoring, of course.

Hi Power Rifle. . .

The Hi Power Rifle League completed its 1978 season recently with the following winners:

	Sc. Avg.
R. J. Spurling	480.40
Jack Huff	478.60
Don Kiplinger	466.33

	H-Cap Avg.
Ed Hines	482.50
Roy Hicks	481.89
Larry Weston	480.45

Next issue. . .

The next issue will be dated October 12. The deadline is October 4.

safety scoreboard

Time worked without a lost-time accident through September 21:

Paducah	41 Days	574,000 Employee-Hours
ORGDP	168 Days	5,436,000 Employee-Hours
Y-12 Plant	162 Days	5,138,000 Employee-Hours
ORNL	249 Days	5,931,420 Employee-Hours

anniversaries...

35 YEARS

Jenks

Benton

Shoemaker

Loy

Glenn H. Jenks' company service began October 6, 1943, at the University of Chicago Metallurgical Laboratory, and he transferred to the Chemistry Division of Clinton Laboratories later that year. In 1973, he joined the Chemical Technology Division, where he is presently a development staff member. Jenks lives at 369 East Drive, Oak Ridge.

Aaron Benton, ORNL Plant and Equipment Division, joined the Engineering and Mechanics Division November 8, 1943. Currently a truck driver, Benton lives at 2710 Lay Avenue, Knoxville.

James H. Shoemaker, a captain in the Plant Protection Department at Y-12, joined Tennessee Eastman October 2, 1943. He lives at 424 Hicks Street, Clinton.

John W. Loy joined the Stores and Receiving Department as a material checker November 2, 1943. He is a building service coordinator with the Plant and Equipment Division at ORNL, and lives at 610 Vanderbilt Drive, Oak Ridge.

Raymond L. Newton (not pictured), an Operations Division foreman, joined ORNL November 2, 1943, as a chemical operator. He lives at Route 7, Clinton.

Y-12 PLANT

30 YEARS

Melvin C. Tipton, Edward L. Stooksbury, Roy L. Sampsel, all in Process Maintenance; George E. Isham, Product Engineering; Clyde C. Carter, H-1 Foundry; Robert McKinney, Casting; and Charles R. Melhorn, Utilities Administration.

25 YEARS

Reed D. Atkins, William W. Smith, Eulysses Smith, Arthur G. Hensley, Delbert E. Wilson, Michael E. Scrivner, Herbert A. Lay, Kimsey H. Hamby, John E. Llewellyn, Kenneth E. Lewis, Leon M. Bray, Alfred R. McConkey, William H. Renfro, William E. Thomas, Coy V. Copeland, Jimmie J. Turner and Reece Robbins.

20 YEARS

Lawerence D. Johns, Walter A. Eble, Beaman H. Fox, William A. Maddux and Dene C. Farrell, Paul E. Kesterson, Walter L. Arnold, Arthur D. Nine, Bernie W. West Jr., Wayne M. Silver and John S. Cobb.

ORGDP

25 YEARS

John W. Amburgey Jr., Harold H. Sigmon, Clifford L. Jeffers, Joe V. Begliutt, Charles M. Wilson.

20 YEARS

Mary T. Klipple.

ORNL

30 YEARS

Alfred R. Jones, Analytical Chemistry; George F. Wells, Physics; Billy C. Leslie, Metals and Ceramics; and Jack C. Rose, Chemical Technology.

25 YEARS

Lawrence A. Howard, Barbara A. Caylor, Kenneth E. Cowser, Margaret E. Carmody and Robert W. Stelzner.

20 YEARS

Walter H. Gibson and Howard F. Holmes.

PADUCAH

25 YEARS

James L. Freeman, Charles A. Lamb, Jerry A. Howell and Don F. Spencer.

FIRE PREVENTION AT ORGDP—ORGDP employees gear for Fire Prevention Week, set for early October. Committee members will canvas their respective work areas for the removal of potential fire hazards. In the front row, from left, are Thomas B. Bomar, Employee Relations; J. Michael Friend, Operations Analysis and Planning; Donald E. Tidwell, Separations Systems; Lyle F. Lieber, Engineering; Ron S. Barry, General Accounting; Donald R. Williams, Finance, Materials and Services; David L. Hill, Enrichment Technology; Josephine H. Walker, Maintenance; and Fred B. Tredinnick, Technical Services. In the second row are John D. Hoogesteger, chairman, Security and Plant Protection; Walter R. Ford, Computer Sciences; William E. Schimmell, Auditing; and B. N. Strunk, Purchasing. Not seen are Russell A. Cooper, Construction Engineering; Marvin S. McCarty, Barrier Manufacturing; Robert L. Payne, Shift Operations; William K. Simon, Operations; and Thomas P. A Perry, Plant Methods and Environmental Group.

question box...

If you have questions on company policy, write the Editor, **Nuclear Division News** (or telephone your question in, either to the eidtor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

Wage increases

QUESTION: In view of the fact that the annual percentage cost of living is increasing faster than are the average annualized salary increases for both the nonexempt and the exempt employee, what chance, if any, is there of a "cost of living" adjustment or a "general wage increase?"

ANSWER: Although economic conditions are taken into account when salary programs are planned each year, it is not UCC's policy to give general wage increases to salaried employees. We feel that differences in levels of performance should be reflected in differences in levels of pay rather than everyone getting the same amount.

We do not agree with your opening statement concerning the relationship between salary increases and cost of living. For the past several years, the average annualized salary increase for most nonexempt and exempt employees has been greater than the increase in cost of living.

Bear Creek alterations

QUESTION: I would like to know the reason for the recent alteration to the White Wing/Bear Creek Roads intersection. Before the change this was a difficult intersection for employees on Bear Creek Road travelling east toward Y-12; now that we have to wait for both north- and south-bound State Road 95 traffic, it is downright impossible! People coming from the north on State Road 95, who now have to make a left turn on to Bear Creek Road at the intersection, aren't happy either with the change. Can't something be done to improve the situation?

ANSWER: The alterations to the Bear Creek Road and State Road 95 (White Wing Road) were made by DOE upon recommendation by the state of Tennessee which has jurisdiction over State Road 95. The changes were made because of several near head-on collisions between eastbound motor vehicles turning from State Road 95 onto the north branch of Bear Creek Road.

Others have raised the same question you are asking. As a result, DOE has been requested to restudy travel conditions at this intersection and to consult with the State if this is indicated. Until an acceptable solution to this problem is developed, you are urged to be patient during the 10 to 15 minute period each morning and evening when traffic is heavy and always cautious when crossing State Route 95 at this intersection.

Canteen standards

QUESTION: The standard of the K-1401 canteen is far below that of the K-1007 canteen, and the K-1007 one is open far longer than either the K-1401 canteen or the cafeteria. Our group has been told we cannot go to the K-1007 canteen to get anything at anytime. I think this is discriminatory. Why should breakfast be made available to employees in K-1007 and not the rest of the plant? Why should we suffer the lower standards of the K-1401 canteen and not be allowed to use the K-1007 canteen?

ANSWER: The ORGDP complex is spread over 600 acres and employs over 6,300 persons. Due to the size and complexity of the operations, employees are assigned throughout the plant area and to several different shifts of work.

Canteens have been established throughout the plant area to service those persons working in their proximity. The K-1007 canteen was established for those employees assigned there and is not large enough to service employees from other areas, too.

The K-1401 canteen is open each weekday at 7:05 a.m. and serves until 7:45 a.m. The same foods are served there as in K-1007. The hours of operation depend upon need and at this time no changes are anticipated.

Electrical training

QUESTION: Why is there no electrical training program at ORGDP?

ANSWER: A training program for electrical helper-trainees was completed less than one year ago at ORGDP. This particular program has been utilized from time to time to afford on-the-job training to qualified hourly employees desiring to advance through the job bid system to higher rated mechanic classifications.

The use of the program depends on programmatic needs. The question of another training program being held is currently under review.

(Please see page 8)

Division death. . .

Mr. Shephard

Homer R. Shephard, Y-12 Mechanical Manufacturing Engineering, died in a Knoxville hospital September 18. A native of Knox County, he joined Union Carbide in 1967. He was a graduate of the Christy Trades School, and a veteran of the Tennessee Army National Guard.

Survivors include his wife, Carol, 712 Kentwood Road, Knoxville; son, Brian, and daughter, Stacy; parents, Mr. and Mrs. Lawrence Shephard; sister, Phyllis Reischling; brothers, William, J. C. and Stanley.

Graveside services were held at the Greenwood Cemetery.

Question box. . .

(Continued from page 7)

Blair Lane abolished

QUESTION: Why was the right turn lane onto Blair Road off Highway 58 South abolished when the modifications were completed at that intersection?

ANSWER: The right lane became the outside lane when Highway 58 was widened at this location. The re-installation of the right turn lane onto Blair Road off Highway South is scheduled by the State Highway Department for completion this fall. The reason for the lack of action on this project to date is the tremendous workload of the contractors assigned to do this job. The State has given priority to making repairs on extensive road damage due to the severe weather conditions last winter.

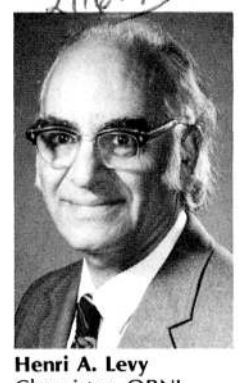
patent granted. . .

To Wesley E. Smith and Bradley Napier Jr., both of the Y-12 Plant, for "Method for Reproducibly Preparing a Low-Melting High-Carbon Yield Precursor."

retirements...

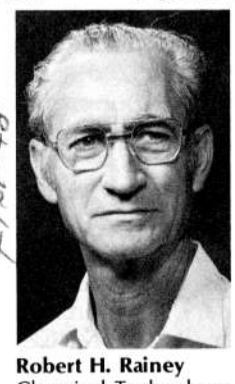
Fred L. Alexander
Y-12 Materials Forming
27 years service

Edward Brewster
Operations, ORNL
31 years service



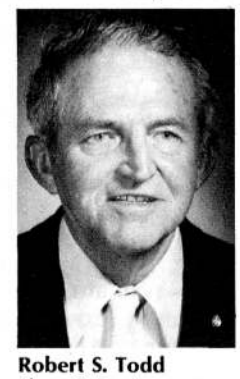
Henri A. Levy
Chemistry, ORNL
35 years service

Loyd I. Orr
Y-12 General Shops
28 years service



Robert H. Rainey
Chemical Technology
ORNL
33 years service

Ellison H. Taylor
Chemistry, ORNL
36 years service



Robert S. Todd
Plant & Equipment
ORNL
32 years service

wanted. . .

Y-12

RIDER TO JOIN VAN POOL from Pleasant Ridge area to Cumberland Estates Shopping Center, Knoxville, to Pine Ridge, 7:30-4. Larry Bohannon, plant phone 3-5101; home phone 637-9874.

THREE VAN POOL RIDERS from Lonas Road, Middlebrook, Weisgarber, Walker Springs area to any portal, straight day. Al P. Brown, plant phone 3-5824, home phone Knoxville 584-1237.

ONE or TWO CAR POOL MEMBERS from Maryville-Alcoa area to any portal, straight day. Don Sexton, plant phone 3-7197, home phone Maryville 982-2906.

RIDE from Garrison Road, Karns, to East or North Portal, straight day. Jamie Copeland, plant phone 3-5640, home phone Knoxville 690-2229.

ORGDP

RIDE from Bearden area of West Knoxville to Portal 2, 6:30-4:30. Sarah "Neal" Horne, plant phone 3-3800, home phone 584-0889.

ORNL

JOIN CAR POOL from East Village area, Oak Ridge, to West Portal, 8-4:30. Gary Puckett, plant phones 3-1516 or 3-0221, home phone 483-7116.

JOIN CAR POOL from Walker Springs, West Knoxville area, to any portal, 8-4:30. Susan Rowland, plant phone 3-1872, home phone 690-3204.

CAR POOL MEMBER from Landmark subdivision, Gulf Park area, Knoxville, 8:15-4:45. N. Hennon, plant phone 3-1421, home phone 690-2088.

CAR POOL MEMBER from Walker Springs Road, Knoxville, to West or South Portal, 8-4:30. Betty Hill, plant phone 3-6441, home phone 690-2962.

CAR POOL MEMBERS from areas of West Outer, Waddell, Pennsylvania or Hillside, Oak Ridge, to East Portal, 8:15-4:45. Tom Burnett, plant phone 3-6939, home phone 483-1975.

RIDE WANTED from between Karns and Solway to East Portal, 8 or 8:15 shift. Sigfred Peterson, plant phone 3-1451, home phone 690-3980.

Cates to manage technical analysis

P. Stephen Cates has been named manager of technical analysis and planning in the Technical Studies and Program Planning Department of the Separations Systems Division, ORGDP.

Cates, a Blount County native, received BS and MS degrees in mechanical engineering from the University of Tennessee. He joined ORGDP 19 years ago, most recently serving as superintendent of the Operations Planning Department.

Cates and his wife, Shirley, live at 106 Davis Lane, Oak Ridge. They have four children: Debra, Phil and Donna Cates; and Diane Seals, an employee in ORGDP's Fabrication and Maintenance Division.

NUCLEAR DIVISION NEWS

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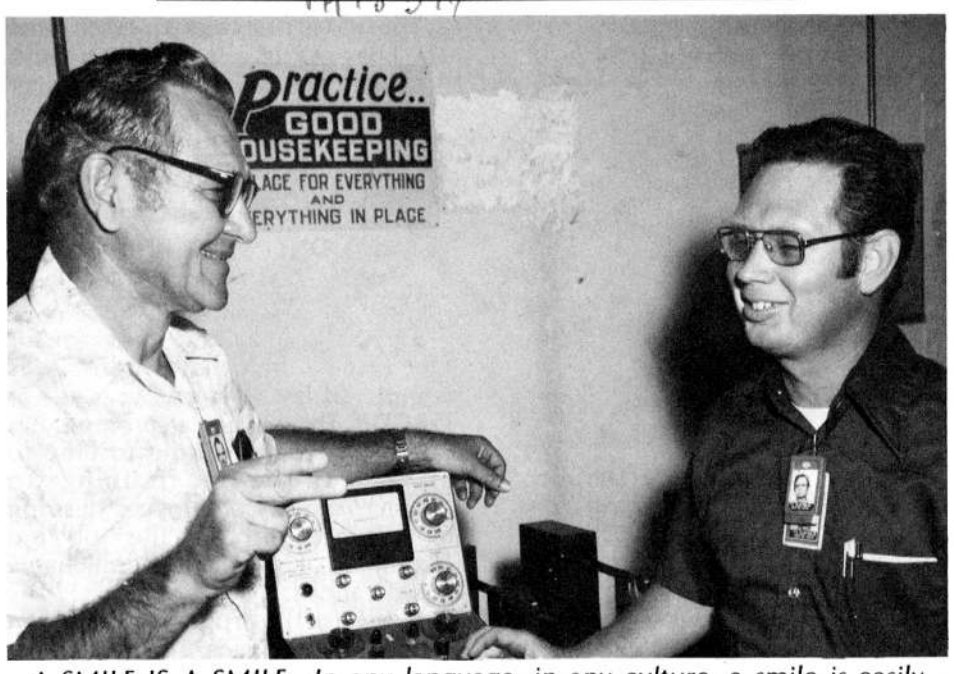

A SMILE IS A SMILE—In any language, in any culture, a smile is easily recognized. H. L. Bracken, left, discusses the operation of machinery with Eddie Clayton, a deaf employee at ORGDP. (Story on page 1.)

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